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| APPLICATION N | IO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | |
|--|------|-------------|----------------------|-------------------------|------------------|--|
| 10/760,604 | | 01/20/2004 | Earl O. Bergersen | BER-P-03-060 | 9955 | |
| 29013 | 7590 | 03/14/2006 | | EXAM | EXAMINER | |
| PATENT | | • | MANAHA | MANAHAN, TODD E | | |
| 2849 W. ARMITAGE AVE. CHICAGO, IL 60647 | | | | ART UNIT | PAPER NUMBER | |
| | | | | 3732 | | |
| | | | | DATE MAILED: 03/14/2006 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | Application No. | Applicant(s) | | | | |
|--|--|---|----------------------------------|--|--|--|--|
| | | 10/760,604 | BERGERSEN, EARL O. | | | | |
| | Office Action Summary | Examiner | Art Unit | | | | |
| | | Todd E. Manahan | 3732 | | | | |
| | The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | | | | | |
| Status | | | | | | | |
| 1) | Responsive to communication(s) filed on 16 L | December 2005. | | | | | |
| · | • | s action is non-final. | | | | | |
| 3) | Since this application is in condition for allowa | ance except for formal matters, pro | osecution as to the merits is | | | | |
| | closed in accordance with the practice under | Ex parte Quayle, 1935 C.D. 11, 4 | 53 O.G. 213. | | | | |
| Dispositi | on of Claims | • | | | | | |
| 4)⊠ | Claim(s) <u>1,3-15,18-24,26-29,31-41,44-68 and</u> | 70-82 is/are pending in the applic | cation. | | | | |
| | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| | Claim(s) is/are allowed. | | | | | | |
| 6)🖂 | 6)⊠ Claim(s) <u>1,3-15,18-24,26-29,31-41,44-68 and 70-82</u> is/are rejected. | | | | | | |
| 7) | | | | | | | |
| 8)□ | Claim(s) are subject to restriction and/o | or election requirement. | | | | | |
| Applicati | ion Papers | | | | | | |
| 9)[7 | The specification is objected to by the Examina | er. | | | | | |
| 10)⊠ The drawing(s) filed on <u>20 January 2004</u> is/are: a)□ accepted or b)⊠ objected to by the Examiner. | | | | | | | |
| , | Applicant may not request that any objection to the | | | | | | |
| | Replacement drawing sheet(s) including the correct | ction is required if the drawing(s) is ob | pjected to. See 37 CFR 1.121(d). | | | | |
| 11) | 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | |
| Priority ι | under 35 U.S.C. § 119 | | | | | | |
| 12)[| Acknowledgment is made of a claim for foreign | n priority under 35 U.S.C. § 119(a | i)-(d) or (f). | | | | |
| a) | ☐ All b)☐ Some * c)☐ None of: | | | | | | |
| | 1. Certified copies of the priority documen | its have been received. | | | | | |
| | 2. Certified copies of the priority documen | its have been received in Applicat | ion No | | | | |
| | 3. Copies of the certified copies of the price | ority documents have been receiv | ed in this National Stage | | | | |
| | application from the International Burea | au (PCT Rule 17.2(a)). | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
| | | | | | | | |
| A44.a.b | | | | | | | |
| Attachmen | n(s) ce of References Cited (PTO-892) | 4) Interview Summan | v (PTO-413) | | | | |
| 2) Notic | 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. | | | | | | |
| | mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08 er No(s)/Mail Date <u>1/3/06</u> . | 5) Notice of Informal 6) Other: | Patent Application (PTO-152) | | | | |
| S. Patent and Trademark Office | | | | | | | |

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DETAILED ACTION

1. Applicant (or the assignee of this application if the assignee has undertaken the prosecution of the application) is required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

2. There are numerous other co-pending applications and issued patents, which disclose and claim very similar and/or identical subject matter. In accordance with 37 CFR 1.105 and MPEP 704.11(a) subsection G, applicant (or the assignee) is respectfully requested to disclose all copending applications and related patents (please see the non-exhaustive list below of applications and issued patents that the USPTO believes may be related) and identify the specific claims of those applications and/or patents which may present double patenting issues with the instant application claims. This requirement is reasonably necessary to examination because, based on an initial review of the applications, there is a significant degree of overlap in claimed subject matter, thus requiring an analysis of commonality of claimed subject matter to determine patentability under 35 USC 101 double patenting and/or obviousness type double patenting. For example, claim 15 of application serial number 10/449,312 differs from claim 7 of application serial number 10/449,292 in only the obvious variation of the base being sized based upon not erupted teeth and claims 21, 30, and 40 of application serial number 10/665,326 differ from claim 21 of application serial number 10/449,292 in only the manner in which the hinge is formed, i.e. product by process. Because the applicant (or the assignee) is presumably far more

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cognizant of the contents of the claims in these applications than any Office staff, and has access to the source documents by which such comparison could be done better than within the Office, it is reasonable to require the applicant to provide the information needed to determine the commonality among the claims.

- Should applicant (or the assignee) believe that Double Patenting exists, then applicant (or 3. the assignee) is invited to file Terminal Disclaimers and/or amend the currently pending claims in the interest of expediting the prosecution of the current application. Applicant (or the assignee) should note that a terminal disclaimer is effective to overcome an obviousness type double patenting rejection, but will not overcome a "same type" double patenting rejection under 35 U.S.C. 101
- 4. Non-exhaustive list of possible related co-pending applications and patents:

09/546,685

09/686,142

10/447,098

10/447,099

10/449,292

10/449,312 10/665,326

10/665,441

10/760,604

11/257,330

Information Disclosure Statement

The information disclosure statement filed 03 January 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that Art Unit: 3732

portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 115, 117, 119, 121. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. It is noted that applicant's remarks mentioned corrected replacement drawings, however not such drawing have been received.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the embodiments wherein the first end is made of a stiffer material than the second end must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing

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should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 5, 33, and 68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not recite what a "reline material" is or what properties it possesses or give examples of materials which could be used as a reline material. As such one skilled in the art would be unable to make and use the invention as they would not know what to use as such "reline material".

Claims 1 and 3-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not

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described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not disclose or otherwise provide support for the second, less stiff material of the second end of the base adhering the base to the teeth.

Thus such recitation constitutes new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 7, 10, 18, 22, 37, 45, 73, and 79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5, lines 1 and 2, "the reline material" lacks a prior antecedent.

Claim 7 recites "the first material has a lesser degree of rigidity than the second material" which contradicts base claim 1.

Claim 10 recites that "the base increases in rigidity from the first end to the second end" which contradicts base claim 1.

Claim 18, line 2, it is unclear which of the previously recited concave portions is being referred to by "the concave portion".

Claim 22 recites "the first material has a lesser degree of rigidity than the second material" which contradicts base claim 14.

Claim 37 recites that "the base increases in rigidity from the first end to the second end" which contradicts base claim 27.

Claim 45, line 2, it is unclear which of the previously recited occlusal surface is being referred to by "the occlusal surface".

Claim 73 recites "the first material has a lesser degree of rigidity than the second material" which contradicts base claim 71.

Claim 79 recites "the first material has a lesser degree of rigidity than the second material" which contradicts base claim 77.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-10, 12, 13, 55, 56, 71, 73-75, 77-81 are rejected under 35 U.S.C. 102(b) as being anticipated by Huge (United States Patent No. 4,448,735).

Huge discloses a dental appliance comprising a generally U-shaped base having a length defined between a first end and a second end and an occlusal surface which contacts the teeth when the device is placed in the mouth. The base further has an interior surface which substantially surrounds a surface of at least one toot. The first end 28 is made of a first material and the second end is made of a second material. Either end may be harder, and thus stiffer, than the other (see col. 3, lines 40-44).

Claims 40, 44-47, 50, 52, 57-59, 61, 64-68 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Bergersen (United States Patent No. 4,898,535).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-10, 12-15, 18-23, 27-29, 31-37, 39, 48, 49, 51, 53, 54, 56, 62, 63, 70, 71, 73-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (United States Patent No. 4,898,535) in view of Adell (United States Patent No. 4,983,334).

Bergersen '535 discloses the invention essentially as claimed except for the first end being of a stiffer material than the second end. Adell discloses a dental appliance wherein either or both ends may be made of a harder, less resilient material than the remainder of the device (see col. 6, lines 17-31). Adell further discloses that the U-shaped base may be sized so as not to cover the full arch (col. 6, lines 32-37). It would have been obvious to form the device of Bergersen '535 the first end being of a stiffer material than the second end as taught by Adell in order to anchor the appliance to the molars on one side and not cause them to move. Regarding claims 23 et al. To form the device so it is sized to cover only part of the arch would have been further obvious also in view of Adell in order to cover only those teeth that need treatment.

Claims 11, 26, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (United States Patent No. 4,898,535) in view of Adell as applied to claims 1, 14, and 27 above, and further in view of Bergersen (United States Patent No. 5,876,199).

Bergersen '199 discloses providing an orthodontic appliance with lingual tabs 46 in order to assist in keeping the mandible advancing maximally at all times and moving forward (see col.

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6, lines 37-46). It would have been obvious to one of ordinary skill in the art to form the appliance of Bergersen '535 as modified by Adell with lingual tabs in view of Bergersen '199 in order to assist in keeping the mandible advancing maximally at all times and moving forward.

Claims 24, 55, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (United States Patent No. 4,898,535) in view of Adell as applied to claims 14, 54, and 71 above, and further in view of Bergersen (United States Patent No. 3,950,851).

Bergersen '851 discloses that it is known in the art to provide a u-shaped orthodontic appliance with a substance lining the tooth cavities, to firmly engage the tooth to hold it in a specific position (see col. 4, lines 11-37). It would have been obvious to one skilled in the art to provide the appliance of Bergersen '535 as modified by Adell with a substance as taught by Bergersen '851 in order to firmly engage the tooth and adhere the device thereto.

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (United States Patent No. 4,898,535) in view of Bergersen (United States Patent No. 3,950,851)

It would have been obvious to one skilled in the art to provide the appliance of Bergersen '535 with a substance as taught by Bergersen '851 in order to firmly engage the tooth and adhere the device thereto.

Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bergersen (United States Patent No. 4,898,535) in view of Bergersen (United States Patent No. 5,876,119).

It would have been obvious to one of ordinary skill in the art to form the appliance of Bergersen '535 with lingual tabs in view of Bergersen '199 in order to assist in keeping the mandible advancing maximally at all times and moving forward.

Response to Arguments

Applicant's arguments with respect to claims 1,3-15,18-24,26-29,31-41,44-68 and 70-82 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd E. Manahan whose telephone number is 571 272- 4713. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571 273-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Todd E. Manahan Primary Examiner Art Unit 3732

T.E. Manahan 8 March 2006

FREDERICK R. SCHMIDT DIRECTOR TECHNOLOGY CENTER 3700